

WHAT IS CLAIMED

1. An airbag system for a vehicle having sensors that detect at least one of an accident-specific variable and a person-specific variable, the system comprising:

an airbag;

a deployment arrangement adapted to fill the airbag with gas when the deployment arrangement interprets an event as an impact against an obstacle, the deployment arrangement including:

independently deployable first and second chambers, the first chamber being capable of filling the airbag with a larger quantity of gas than the second chamber, wherein the deployment arrangement is configured to determine whether to deploy the first or second chamber first on the basis of an evaluation of the at least one of an accident-specific variable and a person-specific variable.

2. The airbag system according to claim 1, wherein the sensors include sensors for detecting at least one of an actual vehicle speed and a relative vehicle speed, and wherein the deployment arrangement is configured to determine whether to deploy the first or second chamber first on the basis of an evaluation of at least one of an crash angle and a crash severity, each of the crash angle and crash severity being determined as a function of at least one of vehicle type, the actual vehicle speed and the relative vehicle speed.

3. The airbag system according to claim 2, wherein the sensors include sensors for detecting a body size, a body weight, a sitting position and an out-of-

position signal, and wherein the at least one of an accident-specific variable and a person-specific variable includes a person type determined as a function of the body size, the body weight, the sitting position and the out-of-position signal.

4. The airbag system according to claim 1, wherein the sensors include sensors for detecting a body size, a body weight, a sitting position and an out-of-position signal, and wherein the person-specific variable includes a person type determined as a function of the body size, the body weight, the sitting position and the out-of-position signal.

5. The airbag system according to claim 4, wherein a delay between the deployment of the first and second chambers is determined on the basis of severity and nature of a crash.

6. The airbag system according to claim 3, wherein a delay between the deployment of the first and second chambers is determined on the basis of severity and nature of a crash.

7. The airbag system according to claim 2, wherein a delay between the deployment of the first and second chambers is determined on the basis of severity and nature of a crash.

8. The airbag system according to claim 1, wherein a delay between the deployment of the first and second chambers is determined on the basis of severity and nature of a crash.

9. A method for deploying an airbag system for a vehicle having sensors that detect at least one of an accident-specific variable and a person-specific variable, the airbag system including airbag and a deployment

arrangement adapted to fill the airbag with gas when the deployment arrangement interprets an event as an impact against an obstacle, the deployment arrangement including independently deployable first and second chambers, the first chamber being capable of filling the airbag with a larger quantity of gas than the second chamber, the method comprising:

evaluating the at least one of an accident-specific variable and a person-specific variable;

determining whether to deploy the first or second chamber first using the at least one of an accident-specific variable and a person-specific variable; and

deploying the first and second chambers in the determined sequence to fill the airbag with gas when the deployment arrangement interprets an event as an impact against an obstacle.

10. The method according to claim 9 further comprising detecting at least one of an actual vehicle speed and a relative vehicle speed using at least one of the sensors, and wherein evaluating the at least one of an accident-specific variable and a person-specific variable includes evaluating at least one of a crash angle and a crash severity as a function of at least one of vehicle type, the actual vehicle speed and the relative vehicle speed.

11. The method according to claim 9 further comprising detecting a body size, a body weight, a sitting position and an out-of-position signal using at least one of the sensors, and wherein evaluating the at least one of an accident-specific variable and a person-specific variable includes evaluating a person type

as a function of the body size, the body weight, the sitting position and the out-of-position signal.

12. The method according to claim 9 further comprising determining a delay between the deployment of the first and second chambers on the basis of severity and nature of a crash.

2025 PF 50738